

SWEN 749: Software Evolution and Re-Engineering (Spring 2019)

Tentative Course Schedule V 1.1

Week	Topics	Paper Presentation / Actions	Presenter	Reviewers	Assignments / Project
W1 01/14	Introduction/Course Overview				
W1	Presentation Review	Who should fix this bug?	Mohamed Wiem Mkaouer	All students	
W2 01/21	No Class (MLK day)				
W2	Software Quality Review/Metrics	Clarify the differences between measurement and metrics			
W3 01/28	Software Quality Review/Metrics Cont'd	Think of your project group			Assignment 1 posted
W3	Software Decay: design defects				
W4 02/04	Software Decay: design defects Cont'd Research Proposal Review	Project Team Registration, or claiming work independently			Proposal Template posted
W4	Paper Presentations	<ol style="list-style-type: none"> 1. Epidemiology as a Framework for Large-Scale Mobile Application Accessibility 2. How Do Software Developers Identify Design problems? 3. An experimental investigation on the innate relationship between quality and refactoring 	<ol style="list-style-type: none"> 1. Jan 2. Max 3. Murtaza 	<ol style="list-style-type: none"> 1. Sakshi / Mihal / Shimon 2. Alexander / Brandon / Parth 3. Steven / Jose / Diego 	

W5 02/11	API Management	Introduce APIs			Assignment 1 due Assignment 2 posted
W5	Paper Presentations	<p>4. Comparing and experimenting machine learning techniques for code smell detection</p> <p>5. Using Natural Language Processing to Automatically Detect Self-Admitted Technical Debt</p> <p>6. An empirical investigation of how and why developers rename identifiers</p>	<p>4. Sakshi</p> <p>5. Mihal</p> <p>6. Shimon</p>	<p>4. Sultan / Arpita / John</p> <p>5. Ashish / Benjamin / Hind</p> <p>6. Jan / Max / Murtaza</p>	
W6 02/18	API Management Cont's	Discussion of API upgrade and Migration challenges			Phase I 3-Page Proposal Due
W6	Paper Presentations	<p>7. Recommending Web APIs to Software</p> <p>8. Do Developers Update Their Library Dependencies</p> <p>9. Improving bug management using correlations in crash reports</p>	<p>7. Alexander</p> <p>8. Brandon</p> <p>9. Parth</p>	<p>7. Sakshi / Mihal / Shimon</p> <p>8. Ashish / Benjamin / Hind</p> <p>9. Sultan / Arpita / John</p>	
W7 02/25	Bug Management	Introduction to Bug tracking and report status			Assignment 2 due Assignment 3 posted
W7	Paper Presentations	<p>10. Release Planning of Mobile Apps Based on User Reviews</p> <p>11. Boosting Automatic Commit Classification Into Maintenance</p> <p>12. Learning from Source Code History</p>	<p>10. Steven</p> <p>11. Jose</p> <p>12. Diego</p>	<p>10. Sultan / Arpita / John</p> <p>11. Jan / Max / Murtaza</p> <p>12. Sakshi / Mihal / Shimon</p>	
W8 03/05	Midterm exam				
W8	Paper Presentations	13. An improved genetic algorithm for task scheduling in the cloud environments using	<p>13. Sultan</p> <p>14. Arpita</p>	13. Alexander / Brandon / Parth	Students should schedule meeting

		<p>the priority queues: formal verification, simulation, and statistical testing</p> <p>14. Perpechey Performance Regression Test Selection Made Simple but Effective</p> <p>15. Curating GitHub for Engineered Software Projects</p>	15. John	<p>14. Steven / Jose / Diego</p> <p>15. Ashish / Benjamin / Hind</p>	with instructor to discuss final project progress in Week 9
03/11	Spring Break	No Class			
	Spring Break	No Class			
W9 03/18	Bug Management Cont'd	Features to localize and assign bugs			Assignment 3 due Assignment 4 posted
W9	Paper Presentations	<p>16. State of Mutation Testing at Google</p> <p>17. Enabling Mutation Testing for Android Apps</p> <p>18. Are Mutants Valid subs for real faults</p>	<p>16. Ashish</p> <p>17. Benjamin</p> <p>18. Hind</p>	<p>16. Jan / Max / Murtaza</p> <p>17. Alexander / Brandon / Parth</p> <p>18. Steven / Jose / Diego</p>	
W10 03/25	Test Fundamentals	Foundations of software testing and introduction of Unit testing			Phase II Literature Review and Open Questions report due
W10	Test Fundamentals Cont'd	Test Oracle Problem and Test case generation			
W11 04/01	Regression Testing	Fundamentals of regression testing			Assignment 4 due
W11	Mutation testing	Concepts and heuristics of mutation testing			
W12 04/08	Guest Lecture	Bug Management in Xerox			

W12	Final Project Presentations	Each Team/Individual Student should prepare 15 min presentation.			
W13 04/15	Final Project Presentations	Each Team/Individual Student should prepare 15 min presentation.			
W13	Final Project Presentations	Each Team/Individual Student should prepare 15 min presentation.			
W14 04/22	Guest Lecture	Final Report Preparation			
W14	No Class	Final Report Preparation			
W15 04/29	Final Report submission				Final Project Report Due

LEGEND

Black text	Lecture
Blue text	Assignment posted / due
Green text	Project deliverable posted / due
Bronze text	Presentations / Reviews
Red shading	Examination
Yellow shading	No class

Syllabus ChangeLog

1/24/19 V 1.1 Added 1 student to the schedule.

1/19/19 V 1.0 Setup initial schedule.